

Bellwork: 12/9/11 - USE ANY METHOD!

✓  $9x + 3y = -3$

$y - x = 11 \Rightarrow y = x + 11$

$9x + 3(x + 11) = -3$

$9x + 3x + 33 = -3$

$(-3, 8)$

$12x = -36$

$x = -3$

$y = 8$

$y = 12x - 3$

$4x - y = -1$

$4x - (12x - 3) = -1$

$4x - 12x + 3 = -1$

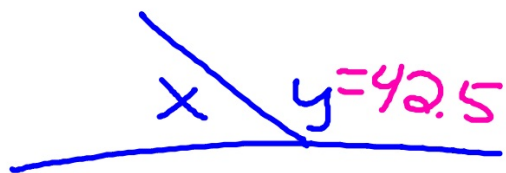
$-8x = -4$

$(\frac{1}{2}, 3)$

$x = \frac{1}{2}$

$y = 3$

4) Two angles are supplementary. The measure of one angle is ten more than three times the other. Find the measure of each angle.



$$x + y = 180$$

$$x = 10 + 3y$$

$$x = 10 + 3(42.5)$$

$$x = 10 + 127.5$$

$$x = 137.5$$

$$10 + 3y + y = 180$$

$$10 + 4y = 180$$

-10

$$4y = 170$$

$$y = 42.5$$

The measure of the two angles are  $137.5^\circ$  and  $42.5^\circ$

5) Rita is older than Megan. The difference in their ages is twelve and the sum of their ages is fifty. How old is Rita?

Rita is 31 years old.

Let  $r$  = Rita's age  
 $m$  = Megan's age

$$\begin{array}{r} 31 - m = 12 \\ -31 \quad \quad -31 \\ \hline -m = -19 \end{array}$$

$$r + m = 50 \quad \checkmark$$

$$r - m = 12 \quad \checkmark$$

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$$2r = 62$$

$$r = 31$$

$$\begin{array}{r} 31 + m = 50 \\ -31 \quad \quad -31 \\ \hline m = 19 \end{array}$$

Let  $S$  = Senior citizen's ticket price

Senior Citizen price is \$8.

$t$  = Student ticket price Student ticket price \$14

$$-4s + 5t = 102$$

$$7s + 5t = 126$$

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$$3s = 24$$

$$s = 8$$

$$4(8) + 5t = 102$$

$$32 + 5t = 102$$

$$-32$$

$$5t = 70$$

$$t = 14$$